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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/426,827      | 10/25/99    | MUDAR                | K D-43266-01        |

CRYOVAC INC  
P O BOX 464  
DUNCAN SC 29334

IM22/0514

EXAMINER

HON, S

| ART UNIT | PAPER NUMBER |
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1772

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DATE MAILED:

05/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

|                              |                               |                              |  |
|------------------------------|-------------------------------|------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>09/426,827 | Applicant(s)<br>MUDAR ET AL. |  |
|                              | Examiner<br>Sow-Fun Hon       | Art Unit<br>1772             |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- |   |  |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 20) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear whether the impact strength is equivalent to the puncture resistance.

### *Claim Rejections - 35 USC § 103*

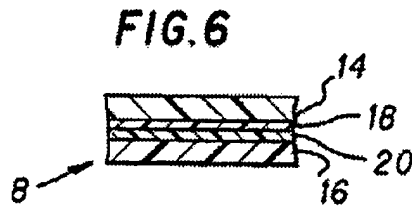
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-8, 10-11, 14, 16-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (US Patent 4,755,403) in view of Oya et al. (Abstract, JP 03024954).

Ferguson teaches a biaxially heat shrinkable bag, and a biaxially heat shrinkable patch which shrinks with the bag, and which is made from a multilayer film which comprises a layer of linear low density polyethylene and a layer of ethylene vinyl acetate copolymer (abstract).

Below is a symmetrical embodiment of the patch taught by Ferguson:



The outer layers 14 and 16 comprise 87 % by weight of linear low density polyethylene (LLDPE). The inner layers 18 and 20 comprise ethylene vinyl acetate copolymer (EVA) having 28 % vinyl acetate (column 3, lines 10-25). Layers 14 and 16 are also taught to comprise 1.7 % pigment (column 3, lines 45-48). Ferguson fails to teach the blending of very low density polyethylene (VLDPE) in with the LLDPE.

Oya et al. teach a multilayer film with improved stretchability, which has a heat-sealable layer of a blend of 55 weight % or more of VLDPE with density of below 0.910 and below 45 weight % of LLDPE with density of 0.910-0.930. The thickness of the heat-sealable layer is set to 40-85 % of the film which is set to 20 to 120 microns (abstract). It is common knowledge to one of ordinary skill in the art that commercially available cost-effective VLDPE and LLDPE are heterogeneous ones.

Because Oya et al. teach that the layer containing the claimed blend of VLDPE and LLDPE is heat-sealable with improved stretchability, it would have been obvious to one of ordinary skill in the art to have substituted the specific VLDPE/LLDPE blend of Oya et al. for the LLDPE layer of LLDPE in order to obtain a patch bag with an improved patch to bag seal and good coordinated heat-shrinkable properties.

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5. Claims 1-8, 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson (US Patent 4,755,403) in view of Ferguson et al. (4,640,856) and Oya et al.

Ferguson ('403) has been discussed above, and although Ferguson ('403) teaches that the invention is directed toward protection of the bag against puncture (abstract), the reference fails to teach claimed layered composition of bag.

Ferguson et al. ('856) have packaging films made into bags which are heat shrinkable and have improved shrink, tear, barrier and puncture resistance properties (column 1, lines 1-11). The multilayer barrier film comprises a gas barrier layer, a layer of VLDPE and a layer comprising a blend of VLDPE and LLDPE (abstract, column 5, lines 25-30). Ferguson et al. teach impact strengths of values of 13 to 28 cm.kg (1.3 to 2.8 Joules) (column 8, lines 25-30), demonstrating the puncture resistance of the films.

Because both Ferguson et al. ('856) and Ferguson ('403) are directed toward puncture resistance, it would have been obvious to one of ordinary skill in the art to have used the teachings of Ferguson ('856) in the invention of Ferguson ('403) to obtain an improved patch bag with oxygen barrier as well as puncture resistance properties.

Ferguson et al. ('856), however, fail to teach the specific claimed amounts of the VLDPE/LLDPE blend.

Oyama et al. which has been discussed above, is directed to a (packaging) film with improved opening properties, heat resistance and stretchability, comprising of a seal layer with claimed specific VLDPE/LLDPE blend.

Because Oyama et al. teach improved stretchability and heat resistance, it would have been obvious to one of ordinary skill in the art to have used the claimed specific blend of Oyama

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et al. as the VLDPE/LLDPE blend of Ferguson et al. ('856) in the invention of Ferguson ('403) to obtain a patch bag with good heat resistance and puncture resistance properties.

It would also have been obvious to one of ordinary skill in the art to have used the VLDPE/LLDPE blend taught by Oya et al. by itself as a monolayer patch in the invention of Ferguson ('403) in order to obtain a less expensive patchbag.

6. Claims 1-7, 9, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson ('403) in view of Wilhoit (US Patent 5,283,128) and Oya et al.

Ferguson ('403) have been discussed above and fail to teach claimed blend of VLDPE/LLDPE/homogeneous ethylene/alpha-olefin copolymer.

Oya et al. have been discussed above and fail to teach the addition of the homogeneous ethylene/alpha-olefin copolymer to the VLDPE/LLDPE blend.

Wilhoit has a biaxially heat-shrinkable food packaging film comprises a three component blend wherein the major constituents are a mixture of VLDPE and LLDPE, EVA, and an ethylene alpha-olefin plastomer copolymer of a density below about 0.90 g/cc.(abstract). The amount of ethylene alpha-olefin plastomer copolymer (Tafmer) (homogeneous) is between about 10 and 20 weight percent of the total weight of the three component blend (column 3, lines 35-55), and is taught to provide desirable elastomeric and crystalline properties with densities in the same range as VLDPE (column 4, lines 40-60 and column 5, lines 55-68).

Because Wilhoit teaches that the addition of the plastomer to the blend of VLDPE/LLDP provides higher shrinkability to the film, it would have been obvious to one of ordinary skill in the art to have added the homogeneous ethylene alpha-olefin plastomer copolymer taught by

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Wilhoit to the specific VLDPE/LLDPE blend of Oya et al. to provide for higher shrinkability for the film of Ferguson ('403) in order to obtain a patch bag with improved heat-shrink properties.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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05/03/07

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

5/7/07